

How Exercise Can Help You Live Longer

By Gretchen Reynolds

Having unhealthy cholesterol numbers, elevated blood pressure or an expanding waistline substantially increases your chances of developing heart disease. But an encouraging new study finds that exercise may slash that risk, even if your other risk factors stay high.



Decades ago, scientists first began linking certain health conditions with heart disease. In the famous Framingham Heart Study, for instance, researchers monitored the health and lifestyles of more than 5,200 adults living in Framingham, Mass., starting in 1948. Using the resulting data, the scientists

determined that high blood pressure, cholesterol levels, obesity, age, gender and smoking each had measurable impacts on whether someone would develop cardiovascular disease.

From their findings, the researchers developed the Framingham Risk Score, which calculates the likelihood of someone experiencing a heart attack within the next 10 years, based on his or her health numbers, especially blood pressure and cholesterol levels. The Framingham Risk Score calculator does not ask about physical activity. But many studies, including continuing portions of the Framingham study, have conclusively shown that people who exercise have a smaller risk of developing or dying from heart disease than sedentary people.

Few of those studies, however, have teased out the unique role of physical activity from those of related lifestyle and health factors. Fit people, after all, may have healthier diets and tend also to have healthy cholesterol profiles, low blood pressure, little inclination to smoke and svelte waistlines (fat around the middle is known to be particularly dangerous for heart health). Those factors could be driving the reduction in heart disease risk, with exercise insufficient by itself to reduce someone's risk of heart problems.

In other words, most past studies did not determine whether exercise would lower someone's risk of cardiac disease even when that person continued to have high blood pressure or other health problems.

So, for a study published in December in PLOS One, researchers at Curtin

The New York Times

April 2, 2014

University in Perth, Australia, set out to better quantify the role of exercise by turning to a trove of existing data about the health of 8,662 Australian men and women. Fifteen years before, these volunteers, then ages 30 to 55, had submitted to cholesterol, blood pressure, waist circumference and other health screenings and completed questionnaires detailing how many minutes they had exercised in the past two weeks and whether the exercise had been easy or relatively vigorous, meaning it had caused them to huff and sweat.

Using these numbers, the researchers determined each participant's Framingham Risk Score at the time of the original measurements. They also divided the group into three categories based on the frequency and intensity of exercise. Someone in the bottom third of exercisers reported never or rarely getting much exercise, apart from an occasional gentle stroll. Those in the middle range reported often walking briskly and occasionally engaging in more vigorous activities, while those in the top category of exercisers said that they worked out almost every day, often vigorously.

Then the researchers checked the names of the volunteers against a national death registry in Australia, which delineates someone's cause of death, if it's known.

Two hundred and eleven of the men and women had died of heart disease in the intervening years. Most had had high Framingham Risk Scores and large waistlines. But exercise habits, too, also appeared to play an outsized role in survival. Over all, people in the lowest exercise category had about twice the risk of dying from heart disease as those in the middle group and six times the risk of those in the group who exercised the most often and vigorously.

More surprising, when the researchers controlled for each volunteer's Framingham risk score and waist size, they found that exercising still significantly reduced people's risk of dying from heart disease. The benefits were fainter, amounting to about half as much risk reduction as before adjustment for these health factors. But they accrued even among volunteers who had less-than-ideal blood pressure, cholesterol levels or waistlines. Someone with a high Framingham score who exercised had less risk of dying than someone with a similar score who did not.

The study's results do not suggest, of course, that any of us should now willfully ignore cholesterol or other standard risk factors when considering heart health, said Satvinder Dhaliwal, a professor at Curtin University, who with Timothy Welborn and Peter Howat, conducted the study. But the data does suggest that "identifying and increasing physical activity" may be "at least as important as the measurement and treatment of lipids and hypertension," he said.

If you aren't active, he said, talk with your doctor about whether you are healthy enough to begin an exercise program. Then, with clearance, go for a walk. In his study, people who walked often and briskly were far more likely to be alive 15 years later than those who rarely got up and moved.